

IN THE CLAIMS

D3 32. (Amended) A transgenic monocot plant wherein at least a part of said plant comprises a recombinant nucleic acid comprising a promoter active in said part operably linked to a nucleic acid encoding a thioredoxin polypeptide wherein said promoter is a seed or grain maturation-specific promoter and said thioredoxin polypeptide is selected from the group consisting of barley, rice, *Arabidopsis*, soybean, wheat, tobacco and Brassica thioredoxins.

33. (Reiterated) The transgenic plant of claim 32 wherein said part is a seed.

34. (Reiterated) The transgenic plant of claim 32 wherein said part is a grain.

Please ~~CANCEL~~ Claim 35.

D4 36. (Thrice Amended) The transgenic plant of claim 32 wherein said promoter selected from the group consisting of rice glutelins, rice oryzins, rice prolamines, barley hordeins, wheat gliadins, wheat glutenins, maize zeins, maize glutelins, oat glutelins, sorghum kafirins, millet pennisetins, rye secalins, and maize embryo-specific globulin promoters.

D5 37. (Amended) The transgenic plant of claim 36 wherein said barley hordein promoter is selected from the group consisting of B-1 hordein and D-hordein promoters.

D4 38. (Amended) The transgenic plant of claim 32 wherein said monocot plant is selected from the group consisting of rice, barley, maize, wheat, oat, rye, sorghum, millet, triticale, turfgrass and forage grass.

39 (Reiterated) The transgenic plant of claim 32 wherein said thioredoxin is thioredoxin h.

40. (Reiterated) The transgenic plant of claim 39 wherein said thioredoxin h is selected from the group consisting of barley, wheat and rice thioredoxin h.

41. (Reiterated) The transgenic plant of claim 32 wherein said recombinant nucleic acid further comprises a nucleic acid encoding a signal peptide operably linked to said promoter and said nucleic acid molecule encoding a thioredoxin protein.

42. (Reiterated) The transgenic plant of claim 41 wherein said signal peptide targets expression of the thioredoxin polypeptide to an intracellular body.

43. (Amended) The transgenic plant of claim 42 wherein said signal peptide is selected from the group consisting of B-1 hordein and D-hordein signal peptides.

77. (Amended) A transgenic monocot seed or grain comprising a recombinant nucleic acid comprising a promoter active in said seed or grain operably linked to a nucleic acid molecule encoding a barley, rice, *Arabidopsis*, soybean, wheat, tobacco, or Brassica thioredoxin polypeptide wherein said promoter is a seed or grain maturation-specific promoter.

Please CANCEL ~~claim~~ 78.

79. (Thrice Amended) The transgenic seed or grain of claim 77 wherein said promoter is selected from the group consisting of rice glutelins, rice oryzins, rice prolamines, barley hordeins, wheat gliadins, wheat glutenins, maize zeins, maize glutelins, oat glutelins, sorghum kafirins, millet pennisetins, rye secalins, and maize embryo-specific globulin promoters.

80. (Amended) The transgenic seed or grain of claim 77 wherein said barley hordein promoter is selected from the group consisting of B-1 hordein and D-hordein promoters.

81. (Amended) The transgenic seed or grain of claim 77 wherein said seed or grain is selected from the group consisting of rice, barley, maize, wheat, oat, rye, sorghum, millet, and triticales seed or grain.

82. (Amended) The transgenic seed or grain of claim 77 wherein said
thioredoxin polypeptide is thioredoxin h.

83. (Reiterated) The transgenic seed or grain of claim 82 wherein said
thioredoxin h is selected from the group consisting of barley, wheat, and rice thioredoxin
h.

84. (Reiterated) The transgenic seed or grain of claim 77 wherein said
recombinant nucleic acid further comprises a nucleic acid encoding a signal peptide
operably linked to said promoter and said nucleic acid molecule encoding a thioredoxin
protein.

85. (Reiterated) The transgenic seed or grain of claim 84 wherein said
signal peptide targets expression of the thioredoxin polypeptide to an intracellular body.

86. (Amended) The transgenic seed or grain of claim 85 wherein said signal
peptide is selected for the group consisting of B-1 hordein and D-hordein signal peptides.

112. (Reiterated) The transgenic plant of claim 38 wherein said plant is rice.

113. (Reiterated) The transgenic plant of claim 112 wherein said thioredoxin
h is rice thioredoxin h.

114. (Reiterated) The transgenic plant of claim 38 wherein said plant is
barley.

115. (Amended) The transgenic plant of claim 114 wherein said thioredoxin
h is barley thioredoxin h.

116. (Reiterated) The transgenic plant of claim 38 wherein said plant is
maize.

[Please CANCEL claim 117.]

118. (Reiterated) The transgenic plant of claim 38 wherein said plant is wheat.

119. (Amended) The transgenic plant of claim 118 wherein said thioredoxin is wheat thioredoxin *h*.

120. (Reiterated) The transgenic plant of claim 38 wherein said plant is oat.

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[Please CANCEL claim 121.]

122. (Reiterated) The transgenic plant of claim 38 wherein said plant is rye.

[Please CANCEL claim 123.]

124. (Reiterated) The transgenic plant of claim 38 wherein said plant is sorghum.

[Please CANCEL claim 125.]

126. (Reiterated) The transgenic plant of claim 38 wherein said plant is millet.

[Please CANCEL claim 127.]

128. (Reiterated) The transgenic plant of claim 38 wherein said plant is triticale.

[Please CANCEL claim 129.]

130. (Amended) The transgenic plant of claim 38 wherein said plant is forage or turfgrass.

[Please CANCEL claim 131.]

132. (Reiterated) The transgenic seed or grain of claim 81 wherein said seed or grain is rice.

133. (Amended) The transgenic seed or grain of claim 132 wherein said thioredoxin is rice thioredoxin *h*.

134. (Reiterated) The transgenic seed or grain of claim 81 wherein said seed or grain is barley.

135. (Amended) The transgenic seed or grain of claim 134 wherein said thioredoxin is barley thioredoxin *h*.

136. (Reiterated) The transgenic seed or grain of claim 81 wherein said seed or grain is maize.

[Please CANCEL claim 137.]

138. (Reiterated) The transgenic seed or grain of claim 81 wherein said seed or grain is wheat.

139. (Amended) The transgenic seed or grain of claim 138 wherein said thioredoxin is wheat thioredoxin *h*.

140. (Reiterated) The transgenic seed or grain of claim 81 wherein said seed or grain is oat.

[Please CANCEL claim 141.]

142. (Reiterated) The transgenic seed or grain of claim 81 wherein said seed or grain is rye.

[Please CANCEL claim 143.]

144. (Reiterated) The transgenic seed or grain of claim 81 wherein said seed or grain is sorghum.

[Please CANCEL claim 145.]

146. (Reiterated) The transgenic seed or grain of claim 81 wherein said seed or grain is millet.

[Please CANCEL claim 147.]

148. (Reiterated) The transgenic seed or grain of claim 81 wherein said seed or grain is triticales.

[Please CANCEL claim 149]

150. (New) The transgenic plant of claim 32 wherein said thioredoxin is *Arabidopsis* thioredoxin *h*.

DH. 151. (New) The transgenic plant of claim 32 wherein said thioredoxin is soybean thioredoxin *h*.

152. (New) The transgenic plant of claim 77 wherein said thioredoxin is *Arabidopsis* thioredoxin *h*.

153. (New) The transgenic plant of claim 77 wherein said thioredoxin is soybean thioredoxin *h*.

154. (New) The transgenic plant of claim 32 wherein said thioredoxin is tobacco thioredoxin *h*.

155. (New) The transgenic plant of claim 32 wherein said thioredoxin is *Brassica* thioredoxin *h*.

156. (New) The transgenic plant of claim 77 wherein said thioredoxin is tobacco thioredoxin *h*.

157. (New) The transgenic plant of claim 77 wherein said thioredoxin is brassica thioredoxin *h*.

REMARKS

Reconsideration is respectfully requested. Claims 32, 36-38, 43, 77, 79, 80, 81, 82, 86, 115, 119, 130, 133, 135 and 139 have been amended. Claims 35, 78, 117, 121, 123, 125, 127, 129, 131, 137, 141, 143, 145, 147 and 149 have been canceled. New